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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,848	07/31/2000	Grant E. Moulton	M-8415 US	5513

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EXAMINER

DUVERNE, JEAN F

ART UNIT PAPER NUMBER

2839

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/628,848

Applicant(s)
Moulton

Examiner
Jean Duverne

Art Unit
2839



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 29, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima (UK patent 2,308,895) in view of Block (US patent 5,513,073).

For claims 1-2 and 22, Kawashima's device discloses an optical switching device comprising a printed circuit board (24), a plurality of optical components (wave guide (12), wave guide substrate (14), fiber pigtails (15), plurality of electrical component such as transistor (18), resistors (19, 20), a heatsink (30) for dissipating heat, attached to the printed board wherein the heatsink interface with the electrical and optical components; the holders 42 are used as tray for routing the optical fiber. However, Kawashima's device fails to explicitly disclose the speed of the data transmission. Block's device discloses the speed of an optical device with high speed data transmission. It would have been obvious to one having ordinary skill in the art at the invention was made to use the optical device with high speed such as the one taught in Block's device for increasing the data transmission in Kawashima's device.

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For claims 3 and 23, Kawashima's and Block's devices disclose the aforementioned limitations including the opening at 25 in which one or more electrical or optical component are embedded (see fig. 11).

1. Claims 4-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima (UK patent 2,308,895) in view in view of Block (US patent 5,513,073 as applied to claims 1-3 and 22-23 , and further in of Bechtel et al (US patent 5,182,632).

For claims 4 and 24 Kawashima's and Block's devices disclose the aforementioned limitations, but fails to explicitly disclose the heatsink with an opening to embed electrical or electronic component. Bechtel's device discloses the heatsink 104) with an opening to embed electrical or electronic components

For claims 5 and 25-26 Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations including a portion of the perimeter of the opening interfaces an electrical component (110A, 110B 110C, 110D).

For claims 6 and 27, Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations including ceramic (see Kawashima's device) which is considered as additional heat compliant conductive material at 24 placed on top of the heat sink an the resistor (19, 20).

For claims 7 and 28 Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations but fail to explicitly disclose the removal of material at the bottom of the heatsink to decrease the size. It would have been obvious to one having ordinary skill in the art at the

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time the invention was made to remove material at the bottom of the heatsink to decrease the size, since such a modification would have involved a change a mere change in the size of a component. A change in size generally recognize to within the general skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

For claims 8-9 and 29-30, Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations but fail to explicitly disclose different location for each component. It would have been obvious to one having ordinary skill in the art at the invention was made to arrange the optical and electrical components at a certain position on the circuit board, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

For claims 10-21, Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations but fail to explicitly disclose the size of different component in term of height. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make some components higher than other, since such a modification would have involved a change a mere change in the size of a component. A change in size generally recognize to within the general skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). The method is considered as an inherent limitation because the apparatus claims mentioned the features recited in the method claims.

For claims 31-39, Kawashima's, Block's, and Bechtel's devices disclose the aforementioned limitations including the optical components operable to receive digital data signal which inherent feature in fiber optic communications (see pages 1-2).

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Response to Amendment/Arguments

Applicant's arguments filed with the amendment on 1/29/2003 have been fully considered but they are not persuasive. The claims do not define "structural structure features" that distinguish over prior art: For example, the terms "high speed optical format data transmission as recited only the preamble of claims 1 and 22 are not positively claimed. Therefore, the aforementioned terms do not add any patentable weight to the claims limitations. In regard to the argument that the heatsink interfacing with the electrical or optical components, the heatsink is not a standalone system. The heatsink is connected to the flexible cable that is connected to the optical transducing assembly (see claims 1-14). Furthermore, in response to applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references can not be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of the primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as whole would suggest to one skilled in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

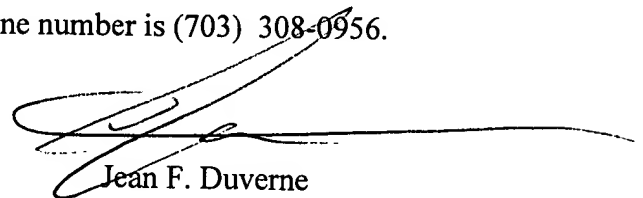
Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duverne whose telephone number is (703) 305 - 0297 . The examiner can normally be reached from 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (703)308-2710. The fax phone number for this Group is (703) 308 - 7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

JFD



Jean F. Duverne

April 2, 2003

Patent Examiner, Art Unit 2839